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JUBILEE MEETING

6–9 May 1968

A special series of meetings has been arranged during the period 6–9 May 1968 to mark the Jubilee Year of The Institute of Physics. The provisional programme will be as follows:

MONDAY 6 MAY

20.00 RECEPTION

TUESDAY 7 MAY

a.m. OPENING OF THE MEETING BY THE PRESIDENT
The structure of matter –
i **The atom outwards** – Sir Lawrence Bragg
ii **The atom inwards** – Professor P. T. Matthews
The crystalline state – Professor E. R. Dobbs
The liquid state – Professor J. M. Ziman

p.m. Symposium arranged by Education Group

evening ANNUAL DINNER AT THE SAVOY HOTEL

WEDNESDAY 8 MAY

a.m. **Transferred electron devices** – Dr C. Hilsum
Materials for solid state electronics – Dr W. Bardsley
Applications of superconductivity – Mr L. A. Thomas

p.m. **Physics of clouds, rain, and snow** – Professor B. J. Mason
Physics of music – Professor C. A. Taylor

evening VISIT TO THE MERMAID THEATRE (including supper)

THURSDAY 9 MAY

a.m. **Physics and physicists in the electronics industry**– Dr G. G. Macfarlane
Financing of physics research in the U.K. – Professor B. H. Flowers

p.m. **Fibre reinforced materials** – Dr A. Kelly
Technical developments arising from gaseous discharges – Dr G. Francis

evening BUFFET SUPPER DANCE

All sessions and social functions (except where otherwise stated) will be held in the **Wharncliffe Suite of the Hotel Russell, Russell Square, London WC1.**

Visits and other social functions will be arranged for ladies and other guests accompanying participants.

Residential accommodation is not being arranged, but Thos. Cook and Sons Ltd have agreed to arrange hotel bookings in certain central hotels for those participants desiring such accommodation.

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Cover picture: Fuel element assembly at Springfields

The Springfields production factory of the United Kingdom Atomic Energy Authority converts uranium ores and concentrates by chemical processes into uranium metal and uranium oxide. A production line for fuel elements for the steam generating heavy water reactor at the Atomic Energy Establishment, Winfrith, was commissioned and operated during 1966-67. Here uranium oxide, in pellet form, is inserted into fuel pins, and a cluster of 36 pins, clad mainly in zirconium alloy with some clad in stainless steel, is then assembled into a 12 ft long fuel element The production operations involving handling of such large fuel elements are novel to the United Kingdom; the cover picture shows the lifting of a completed fuel element to the vertical position with special support apparatus, before final inspection.

A new plant is being built at Springfields for the production of uranium hexafluoride, and is to have an output capacity of 2000 tons a year, three times that of the present plant. The hexafluoride will be shipped to the Capenhurst gaseous diffusion plant for enrichment in the uranium 235 isotope, after which it will be returned to Springfields for fabrication. Besides manufacturing fuel elements for the Winfrith reactor, the Springfields works also produce fuel for the Windscale prototype advanced gas cooled reactor, the domestic experimental programme and for export.

Cover picture by courtesy of U.K.A.E.A.

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